

REMARKS

Claims 1, 6, 9 and 16 have been amended. No Claims have been cancelled or added.

Examiner rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication 2002/0056126 of Srikantan et al. (hereinafter "Srikantan").

Applicants respectfully traverse the rejections. The amendments to the claims are made only to correct minor informalities. The amendments are not made in response to the rejections or to comply with any statutory requirement of patentability, since no such amendments are believed to be necessary.

The present invention relates to a technique of reducing burst traffic when transmitting streaming media data to multiple client systems. Streaming media packets commonly include a metadata portion that specifies a delivery time, which is the time when the packet should be sent to a client. In certain embodiments of the invention, when a particular media stream is requested by two or more clients, the media stream is split, and the specified delivery times of packets in the media stream are modified so that the different clients will receive copies of the same packet at different times, thereby reducing burst traffic.

For example, claim 1 recites:

1. (Currently amended) A method for reducing magnitudes of output traffic bursts in a streaming media cache, comprising:

receiving a request from a first client system for a stream of media data, the stream of media data including a first streaming media data packet and a second streaming media data packet;

receiving a request from a second client system for the stream of media data;

receiving the first streaming media data packet from an upstream server, **the first streaming media data packet including a delivery time;**

determining a first modified delivery time for the first streaming media data packet;

determining a second modified delivery time for the first streaming media data packet, the first modified delivery time different from the second modified delivery time;

modifying the first streaming media data packet with the first modified delivery time to form a first modified first streaming media data packet;

modifying the first streaming media data packet with the second modified delivery time to form a second modified first streaming media data packet;

outputting the first modified first streaming media data packet to the first client system at the first modified delivery time; and

outputting the second modified first streaming media data packet to the second client system at the second modified delivery time.
(Emphasis added.)

Srikantan is concerned with reducing consumption of server resources, by eliminating the need to repeatedly extract and store the metadata associated with a streaming media track when streaming to multiple clients (page 1, para. [0004]). Accordingly, Srikantan proposes creating a single file track to store the metadata for a given track and giving different clients different file track handles to access the metadata (abstract; col. page 2, para. [0020]).

However, first, as discussed below, Srikantan does not disclose or suggest splitting a media stream in accordance with the present invention. Second, as also discussed below, Srikantan does not disclose or suggest modifying the delivery time of a packet in accordance with the present invention.

Regarding the first point, claim 1 recites determining a first modified streaming media data packet and a second modified streaming media data packet, based on the same original streaming media data packet (i.e., both based on the “first streaming media data packet”; see elements highlighted in bold in claim 1 quoted above). This is an example of what Applicant means by “splitting” a data stream. The first modified streaming media data packet is then sent to the first client system, and the second modified streaming media data packet is sent to the second client system.

Srikantan does not disclose splitting a data stream in this way. Srikantan does disclose that a media track or program can be streamed to multiple clients (e.g., page 4, para. [0055]). However, Srikantan does not disclose or suggest that it is done by forming two or more modified streaming media data packets from the same original streaming media data packet.

For at least this reason, therefore, claim 1 is patentable over the cited art. Independent claim 9 includes similar limitations and is therefore also patentable for similar reasons.

Secondly, Srikantan in no way discloses or suggests modifying the delivery time of a packet, much less modifying a delivery time that is included in or specified by the packet itself. The Office Action cites Srikantan at page 2, para. [0020] as disclosing such an operation, however, the cited text does not contain any hint of modifying the delivery time of a packet. Srikantan also discloses that “delivery of each frame or other unit of media must be performed in a specified order and within a certain period of time” (page 2, para. [0026]). However, that also does not amount to a disclosure or even a

hint of modifying the delivery time of a packet, much less modifying a delivery time that is included in (claim 1) or specified by (claim 9) the packet itself.

For at least this additional reason, therefore, claim 1 is patentable over the cited art. Independent claims 9 and 16 include limitations similar to this and are therefore also patentable for similar reasons.

Further regarding claim 16, Srikantan fails to disclose or suggest modifying the specified packet delivery time of a packet of data such that the packet is to be delivered to a first downstream client at a time different than when the packet is to be delivered to a second downstream client. For at least this additional reason, therefore, claim 16 is patentable over the cited art.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

Conclusion

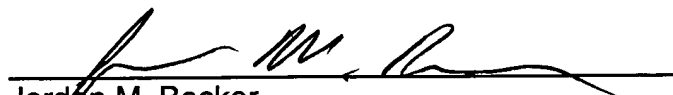
Applicants respectfully submit the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned at (408) 720-8300.

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

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